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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,191	11/20/2003	Hsin-Hui Lee	TS03-179	9793

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EXAMINER

PHAM, THANHHA S

ART UNIT PAPER NUMBER

2813

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/718,191

Applicant(s)

LEE ET AL

Examiner

Thanhha Pham

Art Unit

2813

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>01/29/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 14-20 in the reply filed on June 9, 2005 is acknowledged. The traversal is on the ground(s) that "examining all claims in this single application will not impose extra burden on the Examiner". This is not found persuasive because

a) The above two different classifications show the need for two entirely different fields of a search.

b) The inventions are in different statutory classes which have different case law basis for examination.

c) Non-restriction would mean that if one of the inventions were held to be unpatentable then the other would also be inherently held to be unpatentable.

Therefore, restriction is proper since there are apparently two different inventive concepts in making the device and in the device itself.

The requirement is still deemed proper and is therefore made FINAL.

Oath/Declaration

2. Oath/Declaration filed on 11/20/2003 has been considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (figs. 1-2, pages 1-2) in view of Akram et al. [U.S. 6,534,858].

► With respect to claim 14, Applicant Admitted Prior Art discloses an integrated circuit chip package comprising:

an integrated circuit chip (12) attached to a substrate (10);
a dam (14) surrounding said integrated circuit chip (12); and
an encapsulation material (16) coating said integrated circuit chip (12) and all of said substrate (10) within said dam (14).

Applicant Admitted Prior Art fails to disclose a stress buffering material covering at least one corners of said integrated circuit chip. However, Akram et al. discloses a stress buffering material (626) covering at least one corners of said integrated circuit chip (fig. 8, col. 6, lines 15-18). Therefore, at the time the invention was made, it would have been obvious to one having ordinary skill in the art to modify the device of Applicant Admitted Prior Art with the stress buffering material covering at least one corners of said integrated circuit chip because as taught by Akram et al., the stress buffering material would perform the function of sealing and protecting the semiconductor chip (col. 4, lines 11-13).

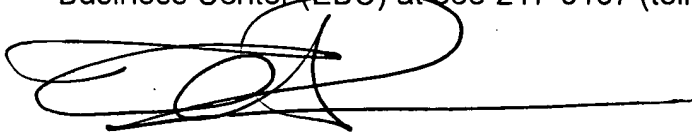
- ▶ With respect to claims 15-16, Applicant Admitted Prior Art (page 2) discloses that the integrated circuit chip is attached to said substrate by a super ball grid array (SBGA) like structure.
- ▶ With respect to claim 17, Akram et al. (fig. 8) discloses that the encapsulation material (802) covers said stress buffering material (626) and wherein said stress buffering material prevents delamination of said encapsulation material at said at least one corner of said integrated circuit chip.
- ▶ With respect to claims 18 and 19, Akram et al. (col. 4, lines 11-18) discloses that the stress buffering material (626) comprises an epoxy and has a low coefficient of thermal expansion.
- ▶ With respect to claim 20, Applicant Admitted Prior Art (page 1) discloses that the integrated circuit chip contains low dielectric constant dielectric layers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhha Pham whose telephone number is (571) 272-1696. The examiner can normally be reached on Monday and Thursday 9:00AM - 9:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in dark ink, consisting of a series of loops and a long horizontal stroke extending to the right.

Thanhha Pham
Patent Examiner
Patent Examining Group 2800